State & Private Forestry

FOREST PEST MANAGEMENT

Report No. 81-3-1

Issued: 7/6/81

AERIAL DETECTION SURVEY OF FOREST INSECT AND DISEASE ACTIVITY, GEORGE WASHINGTON NATIONAL FOREST, VIRGINIA

LAND OWNERSHIP OR SURVEY AREA: George Washington National Forest (Lee, Pedlar, Warm Spring Ranger Districts)

STATE: Virginia

AREA WITHIN SURVEY BOUNDARY: 818,800 acres

DATE: June 26,29,30, 1981

PERCENT COVERAGE: 50%

AIRCRAFT: Cessna 182

CREW: C.W. Dull, Trudy Brandau - FPM; Greg Wujawa, David Benavitch, Kelly Ramsey - George Washington National Forest

REPORT PREPARED BY: C.W. Dull

SURVEY OBJECTIVES

To detect the presence of forest insect and disease activity. Extensive hardwood defoiation had been reported, therefore the boundaries of the defoliated areas would be delineated. The timing of this survey coincided with gypsy moth, Lymantria dispar (Linnaeus), defoliation, if present.

SURVEY RESULTS

Extensive areas of hardwood defoliation were observed during this survey. Defoliation was subjectively categorized as light, moderate or heavy, depending on the appearance of the trees. Figure 1-2 illustrates the locations of these areas in each category. A total of 122,387 acres were defoliated of which 50,380 acres were classified as heavy. Heavily defoliated areas were centered around the northern end of the Massanutten Mountain and along the West Virginia-Virginia border south of Virginia State Highway 55. The Virginia Division of Forestry estimated 30,000 acres of visible defoliation on the northern half of Massanutten Mountain in late May. Ground checks revealed this defoliation to be caused by the linden looper, Erannis tiliara (Harr.), and cankerworm, Alsphila pometaria (Harr.). By mid-June this area had expanded to 50,000 acres in size. Other forest insect and disease activity were not observed. Defoliation suspected to be caused by the gypsy moth was not observed.

CONCLUSION

Defoliated areas appeared to be already in the process of refoliating. Refoliation made it difficult to determine the areas of light defoliation visible from the air. Therefore the total area of defoliation could be

underestimated. Areas of heavy defoliation could experience growth loss and branch dieback. If defoliation occurs within heavily defoliated areas again next year tree mortality may be expected. National Forest personnel should continue field surveillance activities, especially next spring in the areas of heavy defoliation.

For additional information, contact:

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VIRGINIA COMMISSION OF GAME AND INLAND FISHERIES

US FOREST SERVICE DEPARTMENT OF AGRICULTURE

GEORGE WASHINGTON NATIONAL FOREST

LEE RANGER DISTRICT

VIRGINIA WEST VIRGINIA

Fig. 1 - Results of Forest Insect and Disease Aerial Detection Survey, June 26-30, 1981.
Hardwood defoliation classified as L - light, M - moderate and H - heavy.

Fig. 2 - Results of Forest Insect and Disease Aerial Detection Survey, June 26-30, 1981.
Hardwood defoliation classified as L- light, M - moderate and H - heavy.

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GEORGE WASHINGTON NATIONAL FOREST

PEDLAR RANGER DISTRICT

LEGEND